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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Chien-Hsuan Han

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PATENT DOCKET ADMINISTRATOR
LOWENSTEIN SANDLER PC
65 LIVINGSTON AVENUE
ROSELAND, NJ 07068

EXAMINER

WESTERBERG, NISSA M

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PAPER NUMBER

1618

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,926	Applicant(s) HAN ET AL.	
	Examiner Nissa M. Westerberg	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13 - 24, 57 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13 - 17, 20, 21, 23, 24 57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/4/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicants' arguments, filed March 7, 2008, have been fully considered but they are not deemed to be fully persuasive. The following rejections constitute the complete set presently being applied to the instant application.

Claim Rejections - 35 USC § 112 – 2nd Paragraph

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13 – 17, 20, 21, 23 and 24 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has clarified on the record that the ratio of the immediate release component to the controlled release component is based on the weight of the entire component and not the weight of active ingredient (see p 6, paragraph 1 of the response). Therefore, this rejection is WITHDRAWN.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13 – 16, 20, 21 and 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sunshine et al. (US 4,780,463). Due to the inclusion of specific controlled release polymers in the amended claims, this rejection is WITHDRAWN.

Also, the rejections of claims 17 and 24, which were rejected over Sunshine et al. in combination with another reference are also WITHDRAWN.

New Claim Rejections - 35 USC § 103

5. Claims 13 – 16, 20, 21, 23, 24 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sunshine et al. (US 4,780,463) in view of Vishwanathan et al. (PGPub 2002/0119192). Applicant's arguments regarding the Sunshine et al. reference are discussed below.

As discussed in the Office Action mailed December 7, 2007, Sunshine et al. discloses a composition comprising a skeletal muscle relaxant and an NSAID (col 1, In 16 – 19). Baclofen is exemplified as a skeletal muscle relaxant (table III) and those compounds can be administered in compositions wherein the skeletal muscle relaxant contains both an immediate and sustained release component in capsule form (table IV).

Specific controlled release polymers and the total weight of the immediate and sustained release component are not disclosed. Compositions in which baclofen is the only active ingredient present in the composition are also not exemplified.

Vishwanathan et al. discloses oral controlled release solid dosage forms that are suitable for once-a-day administration of the active ingredient (abstract). Short gastric residence times necessitate frequent oral administration for drugs that are absorbed in the upper gastrointestinal tract and that controlled release of such drugs in the proximal gastrointestinal tract has long been sought (paragraph [0004]). Among the drugs that are absorbed predominantly in the upper GI tract is baclofen (paragraph [0032]). The disclosed invention selectively releases the drug in a controlled manner at the gastric levels and upper parts of the intestine over a prolonged period of time (paragraph [0020]). The therapeutic system can be in the form of beads, pellets, granules, tablets or capsules (paragraph [0024]). The inclusion of the hydroxyalkyl cellulose polymer hydroxypropyl methyl cellulose extends the release profile to about 10 hours (paragraph [0022]). Other polymers suitable for inclusion in the compositions of Vishwanathan et al. include acrylic polymers such as those available under the EUDRAGIT® trade name (paragraph [0038]) and a variety of cellulose ethers, including several hydroxyalkyl cellulose polymers and alkyl cellulose polymers (paragraph [0040]).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to prepare a dosage form containing both immediate and sustained release baclofen, as taught by Sunshine et al., and to use the controlled release

polymers taught as suitable for the controlled release of baclofen, taught by Vishwanathan et al., to prepare the controlled release portion of the dosage form.

The ratio of the immediate release component and the controlled release component and the dissolution profile of the drug are both results effective parameters. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ and reasonably would expect success. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each release component and the temporal dissolution profile of the release of the active ingredient in order to best achieve the desired results.

The compositions of Sunshine et al. are directed towards a composition in which a skeletal muscle relaxant, with both a sustained and immediate release component, is present in combination with an NSAID. Vishwanathan et al. discloses that baclofen need not be administered in combination with another active ingredient and can be administered as the sole active ingredient in a controlled release dosage form. It would have been obvious to one of ordinary skill in the art at the time of the instant invention to prepare a composition with baclofen as the sole active ingredient, as taught by Vishwanathan et al., using the immediate and delayed release formulation for the skeletal muscle relaxant component of the composition taught by Sunshine et al.

Applicant has argued that baclofen is not equivalent to the skeletal muscle relaxants in Table IV of Sunshine et al. as baclofen is categorized in the "Miscellaneous" chemical group in table III (col 12). Applicant also states that the examples are directed

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to what appear to be immediate release formulations and that the specific formulations utilizing baclofen are not disclosed.

These arguments in regards to the specific teachings of Sunshine et al. are not found to be persuasive. The teachings of Sunshine et al. are not limited to the specific examples. While the chemical structure of baclofen is different those exemplified in table IV, Sunshine et al. clearly discloses that this compound is a member of the skeletal muscle relaxant category, albeit one that does not share a core structure with other skeletal muscle relaxants, and therefore is suitable for use in the disclosed compositions. Examples 1 and 2 (col 18, ln 19 – 49) do not explicitly disclose the release profiles of the active ingredients. However, the typical unit dose forms in Table IV with the asterisks all indicate compositions in which the skeletal muscle relaxant is present in both a sustained release form and a immediate release form.

6. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sunshine et al. and Vishwanathan et al. as applied to claims 13 – 16, 20, 21, 23, 24 and 57 above and further in view of Fara (2003/0031711).

As discussed above, Sunshine et al. and Vishwanathan et al. teach a composition in which a skeletal muscle relaxant such as baclofen, alone or in combination with an NSAID, is administered with both an immediate and controlled release component of baclofen. The controlled release component comprises an acrylic, an alkylcellulose or a hydroxyalkylcellulose polymer.

Neither reference discloses the stereochemical form(s) of the baclofen, although a structure is given in which a stereocenter is present.

Fara et al. discloses that baclofen can be administered in the form of mixtures of isomers such as racemates ([0034]). A racemate is also known as racemic mixture.

It would have been obvious to one of ordinary skill in the art to prepare a composition using a racemic mixture of baclofen in the immediate and delayed release composition taught by Sunshine et al. and Vishwanathan et al. given the knowledge of one of ordinary skill in the art as the existence of a racemic mixture of baclofen and the teachings of Fara et al. as to the efficacious administration of a racemic mixture of baclofen.

7. Claims 13, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sunshine et al. and Vishwanathan et al. as applied to claims 13 – 16, 20, 21, 23, 24 and 57 above and further in view of Patel et al.

As discussed above, Sunshine et al. and Vishwanathan et al. teach a composition in which a skeletal muscle relaxant such as baclofen, alone or in combination with an NSAID, is administered with both an immediate and controlled release component of baclofen. The controlled release component comprises an acrylic, an alkylcellulose or a hydroxyalkylcellulose polymer.

Neither reference explicitly discloses a capsule formulation in which the capsule contains pellets, beads or granules.

Patel et al. teaches that enteric-coated delayed release oral dosage capsules, a type of controlled release dosage form, can contain pellets, beads or granules (col 43, ln 3 – 16).

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to prepare a capsule further comprises discrete units, taught by Patel et al. as suitable for controlled release dosing forms, with the pharmaceutical formulation of baclofen as taught by Sunshine et al. and Vishwanathan et al.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nissa M. Westerberg whose telephone number is (571)270-3532. The examiner can normally be reached on M - F, 8:00 a.m. - 4 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/
Supervisory Patent Examiner, Art Unit 1618

NMW